

SEQUENCE LISTING

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YEDA RESEARCH AND DEVELOPMENT COMPANY LTD.

<120> DAP-KINASE RELATED PROTEIN

<130> KIMCHI2A

<140> 00

<141> 1999-06-15

<150> 60/089,294

<151> 1998-06-15

<160> 14

<170> PatentIn Ver. 2.0

<210> 1

<211> 1742

<212> DNA

<213> Human

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Met Glu Pro Phe Lys Gln Gln Lys Val Glu Asp Phe Tyr Asp Ile Gly

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gag gag ctg ggg agt ggc cag ttt gcc atc gtg aag aag tgc cgg gag 157

Glu Glu Leu Gly Ser Gly Gln Phe Ala Ile Val Lys Lys Cys Arg Glu

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aag agc acg ggg ctt gag tat gca gcc aag ttc atc aag aag cgg cag 205

Lys Ser Thr Gly Leu Glu Tyr Ala Ala Lys Phe Ile Lys Lys Arg Gln

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agc cgg gcg agc cgg cgc ggt gtg agc cgg gag gag atc gag cgg gag 253

Ser Arg Ala Ser Arg Arg Gly Val Ser Arg Glu Glu Ile Glu Arg Glu

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gtg agc atc ctg cgg cag gtg ctg cac cac aat gtc atc acg ctg cac 301
 Val Ser Ile Leu Arg Gln Val Leu His His Asn Val Ile Thr Leu His
 65 70 75 80

gac gtc tat gag aac cgc acc gac gtg gtg cac atc ctt gag cta gtg 349
 Asp Val Tyr Glu Asn Arg Thr Asp Val Val His Ile Leu Glu Leu Val
 85 90 95

tct gga gga gag ctc ttc gat ttc ctg gcc cag aag gag tca ctg agt 397
 Ser Gly Gly Glu Leu Phe Asp Phe Leu Ala Gln Lys Glu Ser Leu Ser
 100 105 110

gag gag gag gcc acc agc ttc att aag cag atc ctg gat ggg gtg aac 445
 Glu Glu Glu Ala Thr Ser Phe Ile Lys Gln Ile Leu Asp Gly Val Asn
 115 120 125

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 Tyr Leu His Thr Lys Lys Ile Ala His Phe Asp Leu Lys Pro Glu Asn
 130 135 140

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 Ile Met Leu Leu Asp Lys Asn Ile Pro Ile Pro His Ile Lys Leu Ile
 145 150 155 160

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 Asp Phe Gly Leu Ala His Glu Ile Glu Asp Gly Val Glu Phe Lys Asn
 165 170 175

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 Ile Phe Gly Thr Pro Glu Phe Val Ala Pro Glu Ile Val Asn Tyr Glu
 180 185 190

ccc ctg ggt ctg gag gct gac atg tgg agc ata ggc gtc atc acc tac 685
 Pro Leu Gly Leu Glu Ala Asp Met Trp Ser Ile Gly Val Ile Thr Tyr
 195 200 205

atc ctc tta agt gga gca tcc cct ttc ctg gga gac acg aag cag gaa 733
 Ile Leu Leu Ser Gly Ala Ser Pro Phe Leu Gly Asp Thr Lys Gln Glu
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 Thr Leu Ala Asn Ile Thr Ser Val Ser Tyr Asp Phe Asp Glu Glu Phe
 225 230 235 240

ttc agc cat acg agc gag ctg gcc aag gac ttt att cgg aag ctt ctg 829
 Phe Ser His Thr Ser Glu Leu Ala Lys Asp Phe Ile Arg Lys Leu Leu
 245 250 255

gtt aaa gag acc cgg aaa cgg ctc aca atc caa gag gct ctc aga cac 877
 Val Lys Glu Thr Arg Lys Arg Leu Thr Ile Gln Glu Ala Leu Arg His
 260 265 270

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 Pro Trp Ile Thr Pro Val Asp Asn Gln Gln Ala Met Val Arg Arg Glu
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 Ser Val Val Asn Leu Glu Asn Phe Arg Lys Gln Tyr Val Arg Arg Arg
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 Trp Lys Leu Ser Phe Ser Ile Val Ser Leu Cys Asn His Leu Thr Arg
 305 310 315 320

tcg ctg atg aag aag gtg cac ctg agg ccg gat gag gac ctg agg aac 1069
 Ser Leu Met Lys Lys Val His Leu Arg Pro Asp Glu Asp Leu Arg Asn
 325 330 335

tgt gag agt gac act gag gag gac atc gcc agg agg aaa gcc ctc cac 1117
 Cys Glu Ser Asp Thr Glu Glu Asp Ile Ala Arg Arg Lys Ala Leu His
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 Pro Arg Arg Arg Ser Ser Thr Ser
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 35 40 45

Ser Arg Ala Ser Arg Arg Gly Val Ser Arg Glu Glu Ile Glu Arg Glu
 50 55 60

Val Ser Ile Leu Arg Gln Val Leu His His Asn Val Ile Thr Leu His
 65 70 75 80

Asp Val Tyr Glu Asn Arg Thr Asp Val Val His Ile Leu Glu Leu Val
 85 90 95

Ser Gly Gly Glu Leu Phe Asp Phe Leu Ala Gln Lys Glu Ser Leu Ser
 100 105 110

Glu Glu Glu Ala Thr Ser Phe Ile Lys Gln Ile Leu Asp Gly Val Asn
 115 120 125

Tyr Leu His Thr Lys Lys Ile Ala His Phe Asp Leu Lys Pro Glu Asn
 130 135 140

Ile Met Leu Leu Asp Lys Asn Ile Pro Ile Pro His Ile Lys Leu Ile
 145 150 155 160

Asp Phe Gly Leu Ala His Glu Ile Glu Asp Gly Val Glu Phe Lys Asn
 165 170 175

Ile Phe Gly Thr Pro Glu Phe Val Ala Pro Glu Ile Val Asn Tyr Glu
 180 185 190

Pro Leu Gly Leu Glu Ala Asp Met Trp Ser Ile Gly Val Ile Thr Tyr
 195 200 205

Ile Leu Leu Ser Gly Ala Ser Pro Phe Leu Gly Asp Thr Lys Gln Glu
 210 215 220

Thr Leu Ala Asn Ile Thr Ser Val Ser Tyr Asp Phe Asp Glu Glu Phe
225 230 235 240

Phe Ser His Thr Ser Glu Leu Ala Lys Asp Phe Ile Arg Lys Leu Leu
245 250 255

Val Lys Glu Thr Arg Lys Arg Leu Thr Ile Gln Glu Ala Leu Arg His
260 265 270

Pro Trp Ile Thr Pro Val Asp Asn Gln Gln Ala Met Val Arg Arg Glu
275 280 285

Ser Val Val Asn Leu Glu Asn Phe Arg Lys Gln Tyr Val Arg Arg Arg
290 295 300

Trp Lys Leu Ser Phe Ser Ile Val Ser Leu Cys Asn His Leu Thr Arg
305 310 315 320

Ser Leu Met Lys Lys Val His Leu Arg Pro Asp Glu Asp Leu Arg Asn
325 330 335

Cys Glu Ser Asp Thr Glu Glu Asp Ile Ala Arg Arg Lys Ala Leu His
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Pro Arg Arg Arg Ser Ser Thr Ser
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35 40 45

Ile Glu Arg Glu Val Ser Ile Leu Lys Glu Ile Gln His Pro Asn Val
50 55 60

Ile Thr Leu His Glu Val Tyr Glu Asn Lys Thr Asp Val Ile Leu Ile

65

70

75

80

Leu Glu Leu Val Ala Gly Gly Glu Leu Phe Asp Phe Leu Ala Glu Lys
85 90 95

Glu Ser Leu Thr Glu Glu Glu Ala Thr Glu Phe Leu Lys Gln Ile Leu
100 105 110

Asn Gly Val Tyr Tyr Leu His Ser Leu Gln Ile Ala His Phe Asp Leu
115 120 125

Lys Pro Glu Asn Ile Met Leu Leu Asp Arg Asn Val Pro Lys Pro Arg
130 135 140

Ile Lys Ile Ile Asp Phe Gly Leu Ala His Lys Ile Asp Phe Gly Asn
145 150 155 160

Glu Phe Lys Asn Ile Phe Gly Thr Pro Glu Phe Val Ala Pro Glu Ile
165 170 175

Val Asn Tyr Glu Pro Leu Gly Leu Glu Ala Asp Met Trp Ser Ile Gly
180 185 190

Val Ile Thr Tyr Ile Leu Leu Ser Gly Ala Ser Pro Phe Leu Gly Asp
195 200 205

Thr Lys Gln Glu Thr Leu Ala Asn Val Ser Ala Val Asn Tyr Glu Phe
210 215 220

Glu Asp Glu Tyr Phe Ser Asn Thr Ser Ala Leu Ala Lys Asp Phe Ile
225 230 235 240

Arg Arg Leu Leu Val Lys Asp Pro Lys Lys Arg Met Thr Ile Gln Asp
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Ser Leu Gln His Pro Trp Ile
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 35 40 45
 Ile Glu Arg Glu Val Asn Ile Leu Arg Glu Ile Arg His Pro Asn Ile
 50 55 60
 Ile Thr Leu His Asp Ile Phe Glu Asn Lys Thr Asp Val Val Leu Ile
 65 70 75 80
 Leu Glu Leu Val Ser Gly Gly Glu Leu Phe Asp Phe Leu Ala Glu Lys
 85 90 95
 Glu Ser Leu Thr Glu Asp Glu Ala Thr Gln Phe Leu Lys Gln Ile Leu
 100 105 110
 Asp Gly Val His Tyr Leu His Ser Lys Arg Ile Ala His Phe Asp Leu
 115 120 125
 Lys Pro Glu Asn Ile Met Leu Leu Asn Lys Asn Val Pro Asn Pro Arg
 130 135 140
 Ile Lys Leu Ile Asp Phe Gly Ile Ala His Lys Ile Glu Ala Gly Asn
 145 150 155 160
 Glu Phe Lys Asn Ile Phe Gly Thr Pro Glu Phe Val Ala Pro Glu Ile
 165 170 175
 Val Asn Tyr Glu Pro Leu Gly Leu Glu Ala Asp Met Trp Ser Ile Gly
 180 185 190
 Val Ile Thr Tyr Ile Leu Leu Ser Gly Ala Ser Pro Phe Leu Gly Glu
 195 200 205
 Thr Lys Gln Glu Thr Leu Thr Asn Ile Ser Ala Val Asn Tyr Asp Phe
 210 215 220
 Asp Glu Glu Tyr Phe Ser Asn Thr Ser Glu Leu Ala Lys Asp Phe Ile
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 Arg Arg Leu Leu Val Lys Asp Pro Lys Arg Arg Met Thr Ile Ala Gln
 245 250 255
 Ser Leu Glu His Ser Trp Ile
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Arg Lys Arg Arg Lys Gly Gln Asp Cys Arg Met Glu Ile Ile His Glu
 35 40 45

Ile Ala Val Leu Glu Leu Ala Gln Asp Asn Pro Trp Val Ile Asn Leu
 50 55 60

His Glu Val Tyr Glu Thr Ala Ser Glu Met Ile Leu Val Leu Glu Tyr
 65 70 75 80

Ala Ala Gly Gly Glu Ile Phe Asp Gln Cys Val Ala Asp Arg Glu Glu
 85 90 95

Ala Phe Lys Glu Lys Asp Val Gln Arg Leu Met Arg Gln Ile Leu Glu
 100 105 110

Gly Val His Phe Leu His Thr Arg Asp Val Val His Leu Asp Leu Lys
 115 120 125

Pro Gln Asn Ile Leu Leu Thr Ser Glu Ser Pro Leu Gly Asp Ile Lys
 130 135 140

Ile Val Asp Phe Gly Leu Ser Arg Ile Leu Lys Asn Ser Glu Glu Leu
 145 150 155 160

Arg Glu Ile Met Gly Thr Pro Glu Tyr Val Ala Pro Glu Ile Leu Ser
 165 170 175

Tyr Asp Pro Ile Ser Met Ala Thr Asp Met Trp Ser Ile Gly Val Leu
 180 185 190

Thr Tyr Val Met Leu Thr Gly Ile Ser Pro Phe Leu Gly Asn Asp Lys
 195 200 205

Gln Glu Thr Phe Leu Asn Ile Ser Gln Met Asn Leu Ser Tyr Ser Glu
 210 215 220

Glu Glu Phe Asp Val Leu Ser Glu Ser Ala Val Asp Phe Ile Arg Thr
225 230 235 240

Leu Leu Val Lys Lys Pro Glu Asp Arg Ala Thr Ala Glu Glu Cys Leu
245 250 255

Lys His Pro Trp Leu
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Lys Lys Arg Arg Arg Gly Gln Asp Cys Arg Ala Glu Ile Leu His Glu
35 40 45

Ile Ala Val Leu Glu Leu Ala Lys Ser Cys Pro Arg Val Ile Asn Leu
50 55 60

His Glu Val Tyr Glu Asn Thr Ser Glu Ile Ile Leu Ile Leu Glu Tyr
65 70 75 80

Ala Ala Gly Gly Glu Ile Phe Ser Leu Cys Leu Pro Glu Leu Ala Glu
85 90 95

Met Val Ser Glu Asn Asp Val Ile Arg Leu Ile Lys Gln Ile Leu Glu
100 105 110

Gly Val Tyr Tyr Leu His Gln Asn Asn Ile Val His Leu Asp Leu Lys
115 120 125

Pro Gln Asn Ile Leu Leu Ser Ser Ile Tyr Pro Leu Gly Asp Ile Lys
130 135 140

Ile Val Asp Phe Gly Met Ser Arg Lys Ile Gly His Ala Cys Glu Leu
145 150 155 160

Arg Glu Ile Met Gly Thr Pro Glu Tyr Leu Ala Pro Glu Ile Leu Asn

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175

Tyr Asp Pro Ile Thr Thr Ala Thr Asp Met Trp Asn Ile Gly Ile Ile
 180 185 190

Ala Tyr Met Leu Leu Thr His Thr Ser Pro Phe Val Gly Glu Asp Asn
 195 200 205

Gln Glu Thr Tyr Leu Asn Ile Ser Gln Val Asn Val Asp Tyr Ser Glu
 210 215 220

Glu Thr Phe Ser Ser Val Ser Gln Leu Ala Thr Asp Phe Ile Gln Ser
 225 230 235 240

Leu Leu Val Lys Asn Pro Glu Lys Arg Pro Thr Ala Glu Ile Cys Leu
 245 250 255

Ser His Ser Trp Leu
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<210> 9

<211> 29

<212> PRT

<213> Human

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<210> 10

<211> 28

<212> PRT

<213> Human

<400> 10

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Ala Phe Asn Ala Thr Ala Val Val Arg His Met Arg
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<211> 32

<212> PRT

<213> Human

<400> 11

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Arg Leu Lys Glu Tyr Thr Ile Lys Ser His Ser Ser
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<212> DNA

<213> Human

<400> 13

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<212> DNA

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